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Locating the California Trail at City of Rocks, Idaho

This study was conducted in 1995 under a challenge cost-share cooperative agreement signed by the NPS Long-Distance Trails Office in Salt Lake City, the City of Rocks National Reserve, and Idaho State University (ISU) to complete an archeological survey of the California National Historic Trail and its related segments in and around the City of Rocks. Trail segments included the original California Trail, the Salt Lake Alternate of the California Trail, and the Overland Stage Route, with related encampments and sites.

The study's purpose both encompassed research and made recommendations for future management. Its primary objectives were to accurately locate these trail remnants within the Reserve's boundaries and to identify what types of artifacts or resources are associated with them. It also intended (if enough material evidence of the trails and associated campsites remained) to analyze the spatial distribution of these sites with their environmental correlates, providing as a management tool a basic assessment of site location and conditions.

Environment

The City of Rocks National Reserve covers public and private lands near the upper Raft River Valley in south-central Idaho. As part of southern Albion Mountains, the Reserve is characterized by groups, lines, and isolated granitic monoliths and outcrops. Most of these formations, from which the City derives its name, are exposed in the largest and northernmost of three basins contained within Reserve boundaries. One basin is drained by Circle Creek and its tributaries. It is separated by a low divide from the next drainage to the south, a wide, gently sloping basin which leaves the Reserve through Heath Canyon, on the south side of Smokey Mountain. The third basin, Emigrant Canyon, is separated from the others by Twin Sisters Ridge. Emigrant Canyon contains an ephemeral—and today, a deeply entrenched—watercourse with three tributaries.

The vegetation within the Reserve characterizes this high cold desert environment. On the highest elevations are found Douglas fir, Engelmann spruce, and lodgepole pine. Utah juniper and pinyon pine grow on the slopes of the mountains and ridges; aspen can be found along streams and near springs. The lower portions of the slopes and the basins are covered by sagebrush and grass communities. Most of these areas have been extensively impacted by plowing and wheat cultivation and/or grazing. Agriculture and grazing have been conducted within the Reserve for nearly 100 years. The most important plant is the pinyon pine which, with the junipers, forms a recognizable plant community.

Two spurs of the California and Oregon Trails pass through the City of Rocks National Reserve. The main trail enters the Reserve in the northeast corner from the village of Almo, and follows the Circle Creek drainage for a short way before heading south toward the Twin Sisters. After crossing the Twin Sisters Ridge at Pinnacle Pass, the trail continues south and then turns west. At this point, the trail is joined by the Salt Lake Alternate which enters the Reserve from the southeast through Emigrant Canyon. The Salt Lake Alternate was also used in the late 1800s as a stage road and parts of it are still in use today. The two trails run together, paralleling and south of the current county road, and exit the Reserve at its southwest corner.

With the survey goal being to locate and assess the Trail and its associated features, the Trail itself defined the survey corridor. In each area where the Trail could be identified, it became the centerline of the survey. ISU Archaeological Field School students conducted a field survey of a 100 m.-wide corridor, with transacts 10 to 15 m. apart. When the section had been completed, we returned, surveying a second 100 m. corridor on the other side of the Trail, resulting in a 200 m.-wide survey corridor. In areas where the Trail was not readily visible, the transect spacing widened to 20 m. and a corridor approximately 400 m. wide was surveyed. (Not all sections of the Trail could be surveyed due to inholdings within the Reserve. Thus, crucial areas around Register Rock and along the combined California Trail/Salt Lake Alternate portion were not examined by the Field School.)

A hand-held Geographical Positioning System (GPS) unit was used during the archeological survey, recording the location of all archeological sites and isolated finds. In addition, GPS

readings were taken along the Trail (or the probable Trail) every 50 m. Archeological sites and isolated artifacts were recorded on Intermountain Antiquities Computer System (IMACS) forms.

History of Research

Research within the Reserve has focused on either the prehistoric or historic components of the past. A recent report (Historic Research Associates, 1995) provides an excellent summary of the historic resources within the Reserve, as well as of the body of primary and secondary sources which document historic lifeways at City of Rocks. Archeological investigations are documented in a series of reports by Chance and Chance (1990, 1992, 1993).

Archeological surveys in 1989, 1991, and 1992 (Chance and Chance 1990, 1992, 1993) recorded 65 sites. However, only 30 site forms completed by Chance and Chance are on file at the site archives at the Idaho Archaeological Survey, Eastern Repository, Idaho Museum of Natural History. In some cases, Chance and Chance recorded several finds under a single Smithsonian number, while counting them as separate finds. For example, the Taylor Springs Group includes Chance and Chance's field numbers 6, 7, 8, and 9, but are recorded on a single IMACS form as 10 CA 582. Other isolates or small sites appear to have been numbered and noted in Chance and Chance (1990), but not recorded on IMACS forms.

Chance and Chance do not specifically address the condition of the California Trail in their reports, other than to note that there are "more than half a dozen" intact segments (1990:30). They also noted 11 rock outcrops groups with emigrant inscriptions with "perhaps 200 names still legible," and perhaps thousands remaining in part (1990:30). Overall, most of the Trail is classified as an area of secondary archeological sensitivity, except where it intersects a high archeological sensitivity zone near Circle Creek. The Salt Lake Alternate Trail, which enters the Reserve from the southeast, and joins the main Trail south of Twin Sisters, is dismissed as "less interesting only because most of it is still in use as a motor road" (1990:30).

Following the archeological research of Chance and Chance (1993), and others, Historical Research Associates, Inc. prepared a *Historic Resources Study of the City of Rocks National Reserve* (HRA 1995), including field review, archival research, interviews, and reviews of previous research. HRA organized the material available on the Reserve into six major time periods: Native American Use, Fur Trade and Exploration, Overland Migration, the Stage Era, the Open Range Cattle Industry, and Settlement. The last era includes early homesteading when settlers tried irrigated farming within the Reserve, and later settlement which includes dry-land farming and stock-raising. Recorded archeological sites represent four of these six periods. Besides the California Trail and its associated inscriptions, there are prehistoric and possible historic Native American sites, a stage station in Emigrant Canyon, and homesteads. HRA (1995) addresses the nature and condition of cultural resources associated with two of these periods—the overland migration and settlement. Like Chance and Chance (1990), HRA does not specifically address the condition of the California Trail, other than to note the presence of single ruts in some sections and multiple ruts in others. HRA does, however, comment on the erosion affecting the many emigrant inscriptions and also on the importance of the historic view which the emigrants would have had of the City of Rocks or of the Twin Sisters ridge from their camps and travel route.

Results of the 1995 Field Season

During the 1995 field season, three new archeological sites and 10 isolated finds were recorded and given Smithsonian numbers. (See box on p. 16.) Several other small sites were recorded but are not reported here, since they were either recent dumps or rock piles from field clearing—or had been previously recorded. The following is a brief summary of each cultural resource recorded during 1995:

10 CA 837 is a small site on the north side of Pinnacle Pass, just downhill from the pass and near an old jeep road. It contains a variety of rusted, flattened cans, and a few pieces of purple glass and white glazed ceramics. While the site may merely represent a dump, it may also represent a historic pinyon camp. A rusty and partially-flattened pail was found which contained a lump of pine pitch. Such pitch was and is still gathered by Shoshone and Bannock for attaching tools to shafts or handles, for waterproofing basketry, in making flutes, and as gum. This site may reflect historic Native American use of City of Rocks (although it should be noted that Euroamerican settlers have also harvested pine pitch).

10 CA 838 is a can and glass dump near the Salt Lake Alternate Trail, just east of its junction with the main Trail. Several dozen cans, bottles, and glass fragments are contained within a 33 square-meter area. Makers' marks on the bottles and jars indicate a probable date from the 1920s through the 1940s. The site, therefore, postdates the Trail and stage line through the area, but reflects the consistent use of the road up Emigrant Canyon as a motor route.

10 CA 839, a prehistoric site, is a sparse lithic scatter covering several hundred square meters on the north side of Circle Creek, south of

the Reserve entrance road. This lithic scatter may be related to an earlier find, 10 CA 440, a Desert Sidenotched point recovered from the top of the knoll just east of 10 CA 839. The lithic scatter contains at least two dozen secondary and tertiary flakes of volcanic glass. Only one cryptocrystalline flake was noted.

Assessment of the Trail Using Aerial Photos

The 1995 field reconnaissance used a collection of aerial photographs kept in the Reserve, starting from 1950, to analyze changes in erosion, destruction, or stability over the past four decades. The City of Rocks area was recorded in aerial photography eight times between 1950 and 1992. Although the photographs do not match exactly (overflights took place at different altitudes, different times of day, and possibly different seasons), they constitute a body of comparative data about the Trail and the general environment within the Reserve.

To compare these aerial photos, relevant portions of each were captured as computer images, using Image ProPlus 1.0 software, via a Sony super-VHS video camera. The zoom feature of the camera was employed to frame sections of the photograph which would give the most complete information for the area under study and which would be roughly comparable to other photographs of the same area from different years. Although the images were not manipulated further, we would have had the option under this type of software to control color differences, enhance contrasts, and highlight features within the photographs. Close-ups were also taken of sections of the 1950s aerial photographs in which the Trail remnants can be clearly seen.

Findings and Recommendations

From a literature search of the site archives at the Archaeological Survey of ldaho's Eastern Repository, a database of 55 archeological sites and isolated artifacts recorded within or near the City of Rocks National Reserve was developed. Several of these sites had both prehistoric and historic components, resulting in 69 different records entered into the database. For each component, several primary environmental factors were recorded, including elevation, slope, aspect, distance to nearest water and type of water (permanent vs. ephemeral), vegetation, and soil types. Of these variables, vegetation and soil type did not appear to be relevant to the analysis since (1) there are only a limited number of variants in each class, (2) vegetation has changed within the Reserve since prehistoric times and since emigration as well, and (3) the capability of the surveyors to record these variables accurately is untested. Cross-tabulations were made of the environmental variables and the different types of sites recorded.

The 1995 archeological investigations of the California Trail required a variety of computer applications in the field analysis and report production. The use of the GPS units in the field produced on-site UTM locations of the California Trail and associated sites. This digital information could then be entered into a database along with other pertinent site information for analysis. Although the City of Rocks database is too small for significant statistical testing, it indicates the potential for more rigorous testing of larger data sets.

The geographical information system (GIS) analysis of locational data from archeological sites at City of Rocks National Reserve has produced few surprises concerning the data, but indicates the potential of GIS analysis on this and similar data sets. For example, GIS analysis indicates the likelihood of the California Trail entering the City of Rocks from the north side of the knoll, rather than the south side.

The 1995 survey and analysis has documented the condition of the California Trail and some of its branches within the City of Rocks Reserve. Only some segments can be considered in excellent condition—several have faded or are fading rapidly.

Recommendations from this study include (a) nominating the entire Trail corridor within the

The 10 Isolated Finds

10 CA 840, a flat piece of metal (possibly a patch?) with four punched holes, one in each corner, on the California Trail just south of Pinnacle Pass.

10 CA 841, a partially buried metal object, on the California Trail south of Pinnacle Pass, just north of where the Trail crosses the Twin Sisters road.

10 CA 842, a bifacially flaked tool and a secondary flake, both of volcanic glass, east of the California Trail route as it crosses the second basin.

10 CA 843, a retouched flake of volcanic glass, east of the California Trail route as it crosses the second basin.

10 CA 844, a piece of metal of unknown function, buried and not easily removable, located just west of the California Trail route as it crosses the second basin.

10 CA 845, a whitish/clear quartzite flake located just east of the California Trail route as it crests the low rise south of Register Rock.

10 CA 846, the mid-section of a broken projectile point of fine-grained rhyolite found east of the California Trail near its crossing of the Twin Sisters Road.

10 CA 847, a possible Elko point of volcanic glass found just west of the California Trail as it parallels the unnamed drainage between Camp Rock and Register Rock.

10 CA 848 a possible Elko point (broken) of volcanic glass. 10 CA 849 a metal ring of unknown function, 2.5 cm high, located near 10 CA 847 and 848, just across an unnamed drainage from the California Trail.

Reserve to the National Register of Historic Places (under criteria A and D), (b) continuing periodic aerial photograph surveys at optimal times to capture subtle differences in ground moisture (early spring), (c) preserving the visual integrity of the approaches to Pinnacle Pass (including possible restrictions on intrusive rock climbing activities), and (d) continuing archeological surveys of newly acquired or previously unexplored parts of the Reserve.

References

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Interpretive sign illustration by Roger Cooke;the Oregon Trail.